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Students of Worcester Technical Institute

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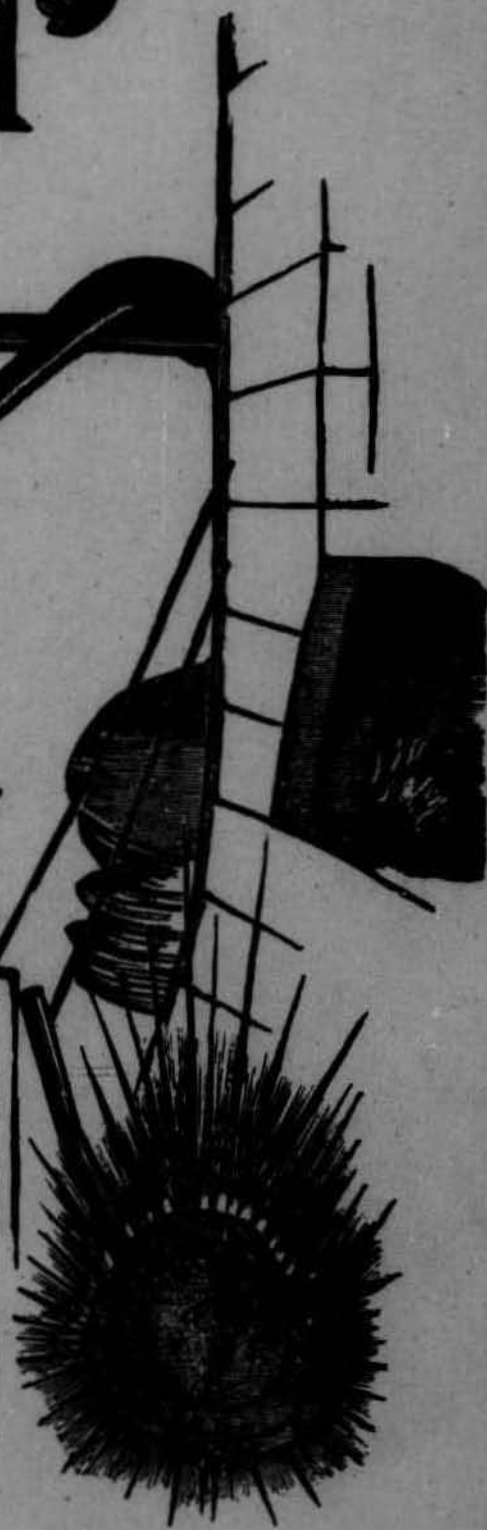
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

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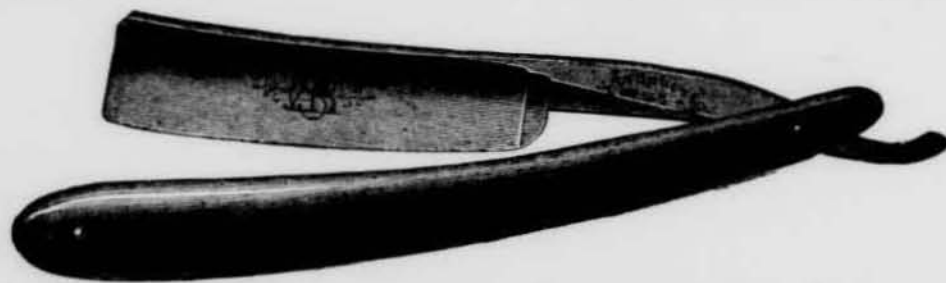
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Vol. I.

WORCESTER, JUNE, 1886.

No. 10.

THE W T I.

Published Monthly, during the School year, by the
Students at the Worcester Technical Institute.

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REST.

FROM THE VARSITY.

REST is not quitting
The busy career.
Rest is the fitting
Of self to its sphere.

'Tis loving and serving
The highest and best:
'Tis onward unswerving,
And that is true rest.

—John S. Dwight.

COMMENCEMENT DAY, with all its time-honored observances, has come and gone. Theses have been read and drawings inspected, a tree has been dedicated and a last song sung, the Valedictory has been said. Photographs have been exchanged, the farewells spoken, and the parting whistle

from the locomotive has announced that the school life of '86 is over. Over, yes, in one sense; but long after the flowers have withered and the orchestral music ceased, even when the end of life is far nearer than its commencement, the stirring scenes of Tech life and its triumphal close will be bright and distinct in their memory. How happily are the closing scenes of the one life named as the commencement of the new. Such to the man of force is the close of every day, of every year, and he is the greatest success who starts the morrow with the best and widest experience behind him.

In this respect, every man at the Tech has finished and begun again, and though many have been disappointed by the rough comparison but lately undergone, enough confidence in the Tech must still remain to admit a benefit derived from its refining process. Hard, cold and unfeeling our educational machine most surely is, having for its mainspring the dogma of the survival of the fittest, and lacking in the perfect means which nature has for determining the fittest; but that is the worst we can say of it, for it is certainly established and carried on solely for our advancement and in accordance with the measure of light that is granted. Those of us then that are low in rank, or have fallen below the mark, must have recourse to our philosophy, and while we bow to the law of

the survival of the fittest, believe firmly in that other law of the survival of everything that is fit to live, ground ourselves firmly on that we can command and climb next year to a higher mark. Not in failure but in low aim lies the disgrace.

But while we can with all rejoice in the successful termination of the more sober duties of the year past, they enable us the more gladly to review the many well-conducted projects of our leisure hours, the records of which will always be associated with '86. Athletics, tennis, foot-ball, base-ball—when have they ever been more ably conducted or proved a greater source of interest and recreation to the school at large? Reorganization and good management have characterized all our interests, and lastly, though we trust worthy of mention, stands the first volume of the school journal completed.

The fly-wheel at the machine-shop is still moving on for the benefit of some unhappy men whose names are still on the list, but it is noticeable that the steam-gauge has a tendency to run low, that the atmosphere at the Tech is much like Sunday, and that the whistling in the halls has ceased at last. There is a general indication everywhere that hard work is over, unless it be in the editors' sanctum, and even there there is a tendency to dream as the hour-glass of the Board of Eds. of '86 is turned for the last time. However, as they watch its steady stream, their dreams are not by any means the result of sadness, for they have nothing to regret in the past, and for the future—a new board of editors has been elected. The best wish

the old board could have for the new is that they may look back at the close, without a single name absent from the list, upon as pleasant a year's work as ours has been, and that throughout they may receive the interest and encouragement from the school and the Alumni which has been our greatest reward.

AS the last number goes to press the editors take the opportunity of expressing their sense of indebtedness to the several friends who, by occasional contributions, have materially lightened their work. Especially are we indebted to Mr. Norman Marshall of '86, whose well-timed verses and occasional stories have been especially appreciated. Together with several other friends who have at times remembered our existence, we are greatly indebted to Mr. Chadwick of '88, to Mr. McFadden of '88, to Mr. Bennett of '86, and to Mr. Harrison of '89, who during the two months he was with us represented the Prep class in much more than name only. We are also under obligation to Mr. Risteen of '85, whose interest in our success has permitted the retention of his name upon our board and who has contributed occasionally. Nor can we, in justice to ourselves, fail at this time to express our great satisfaction in the never-failing attention and courtesy we have received at the hands of the various representatives of the printing establishment of Mr. Chas. Hamilton, whose individual interest has very materially lightened the burden of the executive management of the paper in a way that can only be fully appreciated by one who

has had experience with other firms. Even were their terms otherwise than very reasonable, our advice to the new board of Eds. to renew our contract would doubtless be entirely unnecessary.

In addition we would advise the new board in whatever improvements they may attempt not to change too suddenly the entire make-up and general appearance of the "W T I." A paper becomes familiar and remains much better known and respected in its time-honored dress. If you change to please a few you will be apt to displease a far greater number. The question of the cover will doubtless, as heretofore, come again under discussion and we offer the following in its defense. Of the seventy-five or more college-journal covers we have seen, ours is with all due modesty the most unique and original in character, and is exceptional in representing unmistakably the character of the Institute from which it hails. We have heard no objection to its arrangement from an artistic standpoint, but the drawing has been criticised by those who failed to see that the figures were drawn purposely just as they are as caricatures. If a change is made in an attempt to improve the drawing there is a decided chance of becoming commonplace, and more detail in drawing will first require a different style of engraving, the bill for which will reduce your income to a minus quantity, and will require for a good impression a change from the unglazed paper to the fine glazed quality which in the opinion of those competent to judge is in itself no improvement.

WITH regard to the Steam Engineering Examinations of the Middle class, there has been much controversy among the students due to the relation which the matter bears to the ranking system, and concerning which we wish to have our "say" once more.

We never admitted that the first examination was a fair one, not of itself but because of the attendant circumstances, and when it was announced that the marks were to count in the drawing mark and it was known that the majority of those taking the examination, were conditioned, the sense of fairness on the part of the class, gave rise to a remonstrance to the Faculty against allowing the marks to count. The effect of this remonstrance was that those conditioned should have another examination, and if they then passed the condition should be disregarded.

Now then to whom is the most credit due, the student who obtained say, sixty per cent. on the first, or to him, who after further preparation and cramming obtained eighty, *after* being conditioned? Is it of so small credit to a student to pass clear with even a low mark the first time, that another student who is obliged to try again and who then gets a higher mark shall be allowed to stand ahead of him? It is late now to speak with effect, but if examinations and rank in class are worth anything, it is not profitable to keep silent when there is such *apparent* recklessness manifested regarding them. It is possible the class has not the right idea of the proceedings in this matter, if so it is no fault of its own. It has been left to draw its own conclusions and judged by what it could see.

THE following editorial is taken from the last number of the *Tuftsian*, and arriving just before we go to press we take the liberty of allowing it to stand as our own. "The tidings that the trustees of Harvard college have at last heeded the prayers of alumni and undergraduates, and have made attendance at chapel dependent on the will of each student, fill the college world with hope. Not only may the fifteen hundred students immediately benefited express their satisfaction, but all who have been waiting in patience for the happy day must rejoice in this harbinger of a general freedom. We may yet live to see religious worship everywhere recommended but not enforced, with the gain in sincerity and manliness that must flow from such honorable treatment."

THE BIRTH OF SIN.

THE yag of Wognog, king of Jinn,
Who ruled before the age of man,
Sat down one day to plot and plan
How he might fill the world with sin;
And thinking on that dreadful theme
He hit upon a wondrous scheme.

A sugar bowl was standing near—
A bowl of most portentous size,
Attracting mesozoic flies.

"Aha," said he, with cunning leer,
"I think I'll put a human soul
Within that pretty sugar bowl."

The soul was brought and shut within—
For Jinnee kings were genii, too—
And when he saw it shining through
He said, "Twill not be long ere sin
Will rule the world with winning smile—
Just let her stand and age awhile."

'Twas not in Eden women found,
While chatting with an ugly snake,
The way to raise Old Nick and make
Him scatter wickedness around;
'Twas when the Jinnee put her soul
In such a pretty sugar bowl. —*Eugene Field.*

THE EDITOR'S OBITUARY.

THE editor's sanctum is silent and bare,
A sadness hangs over his quaint oaken chair;
His hand-painted inkstand is empty and dry,
And his favorite stub-pen slumbers idly by.

His favorite stub-pen! Ah! what language
would slip
From the long, slender stick, with its steel-pointed tip.
What "eds" and short poems the old boy could compile—
With the aid of the shears and exchanges on file.

He was ne'er at a loss; with all branches he'd cope;
He could handle the tar-brush or wield the soft soap.
But now he's departed this valley of woe,
And has gone to the land where good editors go.

Well, then, peace to his soul! It is under the eye
Of the Spirit's Great Editor, up in the sky.
Let's hope it will join the cherubical ranks,
And not be "declined," but "accepted," with thanks.

And we'll speak of him kindly; no longer on earth
Will his serious countenance flavor our mirth.
He has gone far away from the world's busy hum,
And we'll write as his epitaph, "Scissors and Gum!"

RICHARD WAGNER.

IT has been said that the world of Music may be divided into five great epochs. First, the age of sound simply as sound, the simple barbaric age. Second, the age when an instinctive desire to communicate makes man put the thought of sound into action. Third, when, having accustomed himself to a knowledge of sound, man desires to arrange it musically. Fourth, the period when reason and instinct contend for the mastery in musical expression.

And fifth, the period when reason dominates and overthrows instinct.

During the years since 1830 we have entered, without doubt, upon the fourth period. Wagner, the great exponent of the intellectual school in Music, recognizing Art as an educator, has seized upon the time-spirit, the ideal of the age, and transformed it into harmony. Before his time the emotional in musical expression had been pushed to the front, and the intellectual abstraction had remained in the background; and, while it is perhaps too much to say that the audiences which crowd the academies of music in New York and Boston during the later musical seasons to listen to Wagnerian music comprehend it, at least they have ceased to vote it "tiresome" and this is certainly a great stride in the right direction. Because such men as Theodore Thomas and the late Dr. Leopold Damrosch have not lowered their ideal of classical music to suit the popular comprehension, the people have been educated in spite of their protests to their own age ideals, and these men prepared the way for German opera whose present season in this country has been so brilliant and so successful.

After years of discouragement, yet of sublime courage, after hatred and malice had beaten in vain against the iron will of the great musical composer and educator, he lived to find himself in the foremost rank of the world's benefactors and his music no longer "of the future" but of the present. Life was to him one consuming desire after harmony. His great heart "thrilled to melodies it could not speak." With his own unexpressed hopes, his own ideals, he voiced

the world-thought and the age-ideal, not forgetting its faults and its weaknesses. In the swan song of Lohengrin, the bewitching voices of the sirens tempting Parsifal, in the despair of Kundry begging, imploring love, in the wild hope that through evil good may come, as well as in the last grand chorus of his life, when purity and goodness triumph over guilt and sin, and faint, far-off voices, from celestial heights sing praises to redemption, Richard Wagner's music "trembles with an inward thrill of bliss at its own grandeur, and voices the pain, the conflict and the possible victory in human hearts. Not even poetry is to the man as true an expression of himself as music. On its waves of sound are borne the involuntary outreaching and uplifting of the soul, and its mighty chords are the expression of his own passions of joy and grief, the very echo of his inmost thought. All musical development therefore chronicles moral and intellectual progression, and furnishes to it a solid stimulant. Wagner refused to be bound to the old musical traditions simply because they were old. He was one of those men who "make habitually a new estimate," and follow their own thought undeterred by forms and rules. Thus he became great. Self-educated he became the educator, self-mastered he became the master-builder of a future of musical expression perhaps grander than he himself knew or could have planned. His genius, born in grief and nursed in pain,

"Like some tall cliff that lifts its awful form,
Swell from the vale and midway leaves the storm.
About its base the rolling clouds are spread,
Eternal sunshine settles on its head."

AN IDEAL SHATTERED.

SHE sits beside me in the square old pew;
Two little gray gloved hands devoutly hold
Her dainty prayer book, and her hymn book, too.
Warm sunbeams fall aslant her head's bright
gold.

The preacher's words sound very far away,
The sweet-voiced singers chant unheard by me.
I watch my darling's upward look and say
Within myself: "Oh, I would I were like thee!
All else forgot; thy thoughts have flown above;
Too pure, too high for earth and such as I."
Just then, with troubled eyes, my little love
Leaned close and whispered with a smothered
sigh:

"That girl in sealskin just across the aisle
Thinks I don't know it's plush!" Well, I should
smile.

L. D. R.

OLIVER WENDELL HOLMES.

THIS remarkable genius to whom at present all England is paying tribute, was born at Cambridge, Aug. 29, 1809. His early life was spent at home. In 1825 he entered Harvard College from which he graduated in 1829. Among his classmates were James Freeman Clark, Prof. Pierce, the astronomer, and Rev. S. F. Smith, who wrote the stirring lines of "America." While in college Holmes began to be known as a writer, contributing twenty-five poems for the "Collegian." Soon after leaving college he took up the study of medicine first in Boston then abroad. On returning home he was appointed Professor of Anatomy in Dartmouth and afterwards in Harvard, where he remained until 1882. During this time most of his literary work was done, which consists mainly of poetry. In appearance Holmes is a little below the medium height, although this is scarcely noticeable on the street. He has a rather long face, high forehead, and a

firm mouth. His hair and short side-whiskers are rather gray.

It is not necessary to read any biography of Holmes in order to know the man's true character. In reading any of his works, either poetry or prose, one is at once struck with the brilliant wit which bubbles forth involuntarily as it seems. It is not wit which depends simply upon the events of the day for its fun, never irreverent like "Mark Twain," never silly or simple as "Josh Billings," but it is a kind of wit which can always be read with pleasure. Holmes is very fond of indulging in puns, although in the "Autocrat of the Breakfast Table," he comes down rather hard on persons who make a practice of that. I should judge him to be something like his brilliant cousin, Wendell Phillips, ever ready to uphold the weak and poor, although unwilling to associate outside of the aristocracy. In fact, he seems to consider anyone who lives outside of Boston as being almost barbarous. As to his being a doctor there can be no doubt, after reading any of his works, since he explains all causes and results from a physician's standpoint. Holmes is a very nervous and quick man, both in his speech and walk, and although he is fond of a jolly good time yet he dreads to meet anyone who is noisy in the least degree. The writings of Holmes are many and various. The bulk of his poems were written either for the "Atlantic Monthly" or for dinners and special occasions. The best known of his poems are "Poetry," "Old Ironsides," "How the Old Horse Won the Bet," and "The Chambered Nautilus." The last is the one by which

Holmes has often expressed a desire to be remembered. His chief prose works are "My Hunt after the Captain," "The Autocrat," "Professor," and "Poet at the Breakfast Table," all of which were written first for the "Atlantic." "How the Old Horse Won the Bet" is probably the best known to the common people of any of his works, although contrary to the wish of the writer himself. In it are no elaborate figures to be worked out, nor many obscure allusions for which Holmes is famous. The "doctor" shows least in this poem of any, and it may be taken as a sample of his wit. A short time ago he went abroad where he has been received with great demonstration, thus showing that his reputation as a writer does not depend on the admiration of his countrymen alone.

A CONTINUED STORY.

"TIS twilight, and the purple haze—"
(Et cetera, as 'tis in stories.)

"One of those perfect Autumn days—"
"Departing rays of sunlight glories."

A maiden, blonde—you understand—

A hero—see some novel's text;
He draws her closer to him, and—
To be continued in our next.

They gaze into each other's eyes,
While he proceeds to grasp her firmer,
They breathe the customary sighs,
The brooklet purls its usual murmur,
The youth renews the grip again,
She does not seem at all perplexed;
He holds her close once more, and then—
To be continued in our next.

The twilight deepens soft and slow;
But still they linger there together,
The kine serenely homeward go,
The perfumed air is filled with weather.
The question then he pops to her;
No need to say she is not vexed,
She answers softly: "I should purr—"
To be continued in our next.

—Chicago Rambler.

COMMENCEMENT.

THE morning of July first dawned bright and clear, giving promise of the perfect day that went so far towards making the Commencement of '86 memorable in Tech history. The exercises at Boynton Hall commenced promptly at half past nine and the limited capacity of the chapel was taxed as it had never been before. The table on page 237 gives the name of each member of the class with statistics.

The exercises at the hall closed at eleven, A. M., allowing the friends of the class an hour for the inspection of the drawings, the machine-shop and other places of interest before the class-tree exercises. Shortly after twelve the class formed in front of the hall and escorted by the ushers marched to appointed place where they found a large assemblage awaiting them. There was much disappointment occasioned by the absence of a band, which through an unfortunate misunderstanding could not be secured, but its absence was wholly compensated for by the excellent rendering of the class-tree oration. The class made an heroic effort to sing without the band with fair success, and planting the tree made up for all deficiencies by a series of most vigorous cheers. Beginning with one for the class of '86, the Tech, the Faculty, the Alumni, and the Undergraduates were all remembered. The Alumni present and the Undergraduates responded most vigorously, and the Alumni then separated and surrounding their respective class-trees made the hills about ring with their cheers beginning with '85 and running as far back as '77.

CLASS TREE ORATION.

FRANK FAY.

Classmates of '86:
We are to-day assembled upon these grounds for the last time during our school course. For three and a half years, broken only by short intervals, we have been daily associated with one another. It is fitting, then, that, as we separate, we leave behind some memorial of our sojourn here.

We shall part with our hearts responsive to many strains, but in each heart there will be one chord which will give forth its sweetest notes when touched by memories of '86.

We trust that our course here has not been without unseen influences which may abide and work for the weal of our successors; which will cause us to be borne in kind remembrance by them. Yet, as a token of the past and an emblem of the future, we plant this tree. Clothed with matured friendships, adorned with fond memories, graced by bright hopes, it will stand our cherished representative. Embodied in it are the ties which bind us. From it as a centre our paths diverge into the unknown future. At its feet we cast our burdens and gird ourselves for the coming fray.

In after years, as we perchance stand beneath its shade, it will waken a train of thought held precious to us. Old scenes will be revisited and absent faces come flitting past our vision.

Transplanted to a new soil, it is to-day consigned to Nature's keeping.

What better emblem than a tree! Not like the ivy, dependent for its support, but planting its roots deep in the firm earth, it stands majestic and alone. In spring it puts forth its buds, expands them into a luxuriant foliage, and develops in summer a picture of life and beauty. In midwinter it stands stripped of its verdure, bare and unprotected are its branches. The life and beauty of summer have vanished.

But beautiful as it may be in summer, no less beautiful to the thoughtful mind is it in winter. To outward appearances, lifeless; but within lies that dormant life which winter's coldest blasts cannot penetrate, nor her fiercest storms quench. Patiently, day after day, it waits. The dreary months slowly pass, till at the first opening of spring it bursts forth afresh, more vigorous in its growth, more beautiful in its appearance, more perfect in its nature, for the struggle it has passed. Is there not something here for us? Shall not that life from above dwell within us, carrying us safely through the winter of life? Can we not learn a lesson of patience and perseverance?

The tree assumes its foliage, each year adding twig to twig and leaf to leaf, till at last it reaches its full perfection and symmetry.

So, too—

"The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night."

As essential as strong roots and rich soil are to a vigorous and thrifty growth, so are firm principles and depth of character to a useful and successful life. That tree is not the most beautiful which may attain gigantic size or reach a dazzling height. Wanting in just proportion and symmetrical outline, it falls far short of perfection.

But why the elm? Coming to us from the dim past, surrounded by ancient legends and lingering superstitions, made historic by the history of our own country, it stands to-day the most endeared and highly extolled of all our forest trees. Rapid in its growth, it rises to a commanding height. On every side it throws out lofty, wide-spreading branches, decks them with its light green leaves, a profusion of slender, drooping spray, the reputed delight of fairies. The first to welcome back the summer showers and sunshine, it holds its verdure far into the autumn. Then so deftly do the sunbeams and the zephyrs play among its branches, that one bright yellow hue seems varied by a thousand changes into the deepest brown. Too beautiful to be obscured, too graceful to be dwarfed, too proud to be hedged by plebeian mates, it is rarely found in thick forests; but, skirting their borders or along the banks of cool streams in the fresh, untainted air, the elms raise their heads and spread their sheltering arms. Such is the nature of the race from which she springs. Receive her again, O Earth, to thy broad bosom. Embrace her in thy loving arms; nourish her with thy rich sustenance; cherish her with a parent's fondest care; guide her tender rootlets to thy most fertile spots. Refresh her, O Heaven, with thy rich dews. Let thy warm showers descend and give sweet draughts. From thee, O Sun, thy fostering beams we crave, and ye Winds, breathe forth thy balmy breezes, and ye shall in turn be charmed with the murmur of sweet voices. Under thy fostering care, O Nature, may she attain the full beauty and stature of her race, and as she stands crowned with the glory of full perfection, may she have no cause to blush, to own herself the representative of '86.

CLASS ODE.

NORMAN MARSHALL.

TUNE—"Autumn."

THROUGH these months of toil and pleasure

We have stood as brothers dear,
Hand to hand each struggle sharing—
Sharing in each hope and fear.

Pleasant recollections cluster

Round the years so quickly flown,
Of the dear ones that have bound us
To our happy student home.

Now our student days are ended,

Now we leave these granite walls,
Now our little band must sever—

Following where our duty calls.

Though our pathways ever widen

Through each swift succeeding year,
Yet our friendship will grow stronger,
As the tree we've planted here.

But the parting hour draws nigh—

Greet it with a hopeful eye,

As we join our voices here,

Singing this our last good-by.

One last health to friend and comrade,

Worcester Tech, a health to thee;

May to-day's calm picture brighten

In the light of years to be.

THE AFTERNOON.

IN the afternoon the graduating exercises of the class of '86 took place at 2:30, P. M., in Mechanics Hall, and were attended by a large audience. The exercises opened with music by Ingraham's orchestra, and after prayer had been offered by Rev. Calvin Stebbins, a short introductory address was made by Judge Aldrich, who introduced the orator of the occasion, the Hon. Birdsey G. Northrop, LL.D., of Connecticut. The editors regret that want of the necessary space will prevent their publishing the very excellent remarks of these gentlemen which, however, were copied in full by the papers of that date.

Dr. Fuller addressed the class at considerable length and much to the satisfaction of the audience in the rear of the hall, who up to that time had been able to hear but very little. We are prevented from giving his full address but quote the following, in which, speaking of courage, he makes mention of Mr. Mitchell whose

total loss of the sense of hearing has rendered his course at the Tech so remarkable:—

Be not discouraged: do not relax your efforts till you have touched bottom. You have been trained to work on this principle. You have among you some good illustrations of its adoption. One is so conspicuous and so remarkable, so rare withal, that I cannot forbear, for the sake of others than yourselves, to allude to it. One of your number has, during the whole of his course, been under great physical disadvantages. Without hearing and with poor eyesight, but with an inquisitiveness that nothing but the whole truth would satisfy, and with a determination that has surmounted almost every obstacle, he, whom some of his instructors at the outset predicted could do nothing with our course of study, has proved himself equal to the best of you, graduates fourth in rank on the whole work, and second on that of the last half-year. You cannot grudge him his honors when his three and a half senses have been matched against the five of the rest of you. He has been at times cast down, at times for a little at his wits' end—just as you all will not seldom be; but the dauntless will and the persistent effort has carried him through and given him the mastery of most subjects which few attain. Truth may be elusive, but she cannot escape such a spirit. If it be yours, increase of wisdom will be the assured reward.

But next to his indomitable courage I have watched with admiration your uniform kindness and helpfulness to him. So from this your daily life comes the other phase of my thought. Be not only searchers after truth, but sharers of truth with your fellows. No one man can know all truth, much less discover all. The sum of human knowledge is made up of additions gathered all through the ages.

VALEDICTORY.

ARTHUR FRANCIS WALKER.

THIS afternoon we welcome here the friends who have gathered from far and near to witness the exercises that end our connection with the Worcester Free Institute. As those who came from other places view the scenes and surroundings of our student life, they will readily understand our regret at leaving this beautiful city that, for the last three years, has been our home. That our life under such circumstances has been pleasant it is needless to say. Separation from those who, by their kindness and friendship, have added to our happiness is painful. People of Worcester: our relation with you has been a pleasant one, and it is fit that we should now express our thanks for your kindness towards us.

Your city's library has been placed at our disposal, and, while the one at the Free Institute is still in such sad need of enlargement, it is a most valuable adjunct to our work. In your churches we have been met with an outstretched hand and welcomed to religious worship and social intercourse. We have felt your interest in us as students of an institution which this city cherishes, and we have been thankful for it. To those who have befriended us while here,—we must now bid farewell, but we shall ever treasure in our hearts the sweet memory of these years spent in your midst, and the friendships here formed.

Undergraduates: You have been, for a longer or shorter period, our companions here, and have shared the advantages of a similar education. We have watched your coming and have welcomed you to student life. You have united with us in all that was of common interest, and together we have been ever ready to defend the honor of the school in contests with our neighbors. On field-days we have met for the promotion of athletics, and though we have vied with one another for class honors, we have all—irrespective of class—joined with a hearty cheer for those that excelled. The publication of the W T I has been a joint one in which all have participated, and it has had a wonderful effect in perfecting our union, in fostering common interests, and in maintaining our status with other educational institutions. In the school organizations we have been known only as fellow-students. Many, from each class, have combined in the Young Men's Christian Association for the advancement of Christian interests and for the spiritual welfare of our numbers. Our intercourse with you has been harmonious throughout, and in bidding you farewell we wish you the best of success in the school-work that remains. If we have a right to offer you any advice, it would be to watch more closely the few remaining months, that your progress in the paths of learning may be more rapid as you near the end.

"Time glides with undiscovered haste;
The future but a length behind the past."

Each class in its turn will soon fill our place, and we hope each succeeding one will be a greater honor than its predecessor to the Cherishing Mother of us all.

Gentlemen of the board of Trustees:

Our acquaintance and contact with you has been but slight, yet we have felt your interest in us as students, and we, in turn, have watched with great satisfaction your efforts to increase the efficiency of the Institute. Something has been secured in this direction already, in the recent grant of \$50,000 by the State, yet this is but little of what is needed. Increased facilities are required in respect to instruction, room, and apparatus, in order that we may keep abreast of the times, and hold our place as one of the first institutions affording a technical education. As reflection and investigation show what such schools have done for this country and for all other countries that have established them in advancing the arts and manufactures, we hope public spirited men will be induced to come forward and help along this work that has been so well begun. The work of the graduates of this Institute is ample proof of the value of such instruction and a recommendation of its excellent management. For all you have done, and for all it is in your hearts still to do, for the future welfare of the Free Institute, we gratefully give you our thanks, Gentlemen, as we bid you farewell.

Gentlemen of the Faculty: As we bid farewell to-day to the friends and associations of school and city, and acknowledge our thankfulness for kindnesses received, there are none to whom we turn with so much gratitude as to you. There are times, as I think is always the case with students pursuing some dry and difficult study, when work is found irksome and when without seeing the end towards which their instructors are striving, they rebel, and do and say what they afterwards regret. We have been no exception to this rule and our conduct towards you not always what could be wished, but as we stand here to-day and review your relations with us—in clearer judgment than ever before—we can see that they have been ever prompted by a sincere interest for our good. The efficiency of a school is not so much promoted by costly buildings and expensive outfits as it is, by the faithfulness of its teachers in the work with their pupils. That the Worcester Free Institute is blessed with such a faithful corps of instructors, it is our pleasure to testify. Many an hour you have spent outside of the class-room and outside of your regular duties in giving

us individually your aid upon subjects, which werenot clearly understood or upon those, perhaps, in which we had taken some special interest, and you have done so, not only willingly, but with evident satisfaction in our desire to progress. Your work in this direction, during this last term, has been more evident than ever before by your giving a great share of your leisure time in helping us over the difficult parts of our thesis work. It would be foolish for me to attempt to enumerate the reasons for which we should express our gratitude, for they are found in every little act which you could do to help our advancement, and to make the attainment of knowledge pleasant. You have had an interest not alone in our intellectual, but in our moral and physical culture, and have exerted over us such influences, as would lead us to become men of honor and respect. As we go forth from your guidance, we would express our profoundest obligations for all your efforts in our behalf and for your interest in our welfare. Though we say farewell to you as instructors, yet we feel that the impulses you have given to our minds will live on, and our gratitude for your patience and perseverance will not cease.

Classmates: It is three years since we first assembled in the class-rooms of our Alma Mater, and made our first acquaintance with the student-life to which we now bid farewell. This day seemed far in the future then, and in the midst of the absorbing duties and merry pleasures we have since experienced, it has been unthought of until we now stand face to face with the reality. How short it all has been, as we look back from the position which we now hold and feel that in a few brief hours we must part and return to these duties no more! We do not reach this goal with ranks unbroken. A trifle more than fifty per cent. are here to-day. Twenty-nine now represent the fifty-six that commenced the same journey. We have seen them leave one by one, wished them "God-speed," and still remember with pleasure the good times we have had with them. We have been united as a class. There has been but little jealousy or enmity among us. There has existed one common good feeling, friendship, and interest in the welfare of one another. As each year has passed,

we have felt the strong bonds of amity grow apace: with it has grown our common love for the Institution that has nurtured us. How can I seek to explain this feeling, this charm of association, which has grown so powerful? I could mention innumerable times that we have met in the pursuit of pleasure; when we have assembled at field-sports, and loudly cheered for '86. Yes, I could mention many things that have united us in class feeling, and these have without doubt contributed to this end. But the truer explanation, I think, is not found in these more trivial affairs, but is seen in the cause that brought us together. We came here with one object—to seek culture and fitness for the duties of life. We came when, entering the years of young manhood, we felt more keenly than ever before the advantage of such a course and the necessity of earnest work. Through all this training we have gone hand in hand; we have pursued the same subjects, solved the same problems, and made the same conquests.

We have felt the dormant energies of our minds awakened from their slumber and urged into activity by the inspiration of our labor. We have been taught to think, to express our thoughts, and to rely upon ourselves in the acquisition of knowledge, and have felt this exercise strengthen and mature our minds. New powers and new capacities have been developed of which we did not dream, and we have rejoiced in their unfolding. Is it strange then, when feeling the ennobling influences of such an education, that the companionships and the associations in obtaining it have become so dear? It is always hard to part with old places and old friends, but in these that we must leave it seems doubly hard. Yet we would not delay the progress of time, nor have it turn backward in its flight that we might linger among these scenes so pleasant. Ambition and self-respect demand that we should take upon our shoulders our share of life's toil. The true man does not seek education for self-gratification alone, but that it may increase his usefulness to mankind. The worthy end of education is not culture but service. As we go forth and begin another chapter in the history of our lives, may sloth not be imprinted upon its pages! May the tale which it shall relate, not show that our advancement has ended with this

hour, but that our thirst for knowledge has carried us ever on to greater duties and acquisitions!

Classmates, the parting hour has come. We must now bid farewell to our student days. In memory they will live and unite us with one fraternal spirit. They will cement us in common love for her who led our feet within the paths of learning and afforded us the advantages we have here enjoyed. May the lives of her sons of '86 never dim her noble record, but shine with a lustre which shall brighten as the years increase!

THE SENIOR RECEPTION.

DURING the hours from five till ten in the evening of Commencement Day, Insurance Hall presented a particularly attractive appearance, it being the occasion of the reception of the Class of '86. As it was planned and carried out with no established precedent to serve as a guide, the Seniors have every reason to feel proud of the great success achieved, apparent in the evident enjoyment of the occasion by all present.

The rooms were handsomely decorated, and a large number of flowering plants rendered the scene especially attractive. Rebboli catered and maintained his usual high standard, and excellent music was furnished by Ingraham's Orchestra who, much to the satisfaction of the lovers of dancing, had on hand a good selection of waltzes. Though the rooms were crowded at times, when the number of graduates are considered, the reception was decidedly select, and it is very certain that eighty-six can boast that no other class has ever been so highly favored by beauty, elegance, and grace. It is to be greatly regretted that so few of the undergraduates were present, for certainly not one of them could be a witness of this truly happy way of parting with our school associations and not upon leaving resolve that his class should do likewise. We sincerely trust that the senior reception has come to stay. At its close the class adjourned with many of their friends to the residence of Dr. and Mrs. Fuller, where they met the Trustees, Faculty, and many of the Alumni, and were handsomely entertained.

SENIOR CLASS SUPPER.

AT the close of the reception at Dr. Fuller's the boys of '86 proceeded to Rebboli's, and at half-past eleven were called to order by President Chapman and proceeded to discuss the last supper they will ever attend as a unit. The menu cards consisted of two sheets with unfinished edges, tinted with the class colors and tied with ribbons of the same shade. What they had for dinner the reporter is unable to say, as they were printed in "Deutsch" and his time is valuable, but the report is highly satisfactory.

At the close of this, the seventh or eighth repast for that day, a silence fell on the assembled multitude and the pipe of peace was smoked. The President then settled down to business and the following members proceeded to address the class: H. J. Chapman, President's Address; J. C. Miller, The Class History; C. F. Hunt, The Ladies; C. Alvord, Worcester; C. W. Higley, Our Landladies; Frank Fay, The First Six; A. B. Fairbanks, The Last Six; A. A. Gordon, Jr., The Undergraduates; W. H. Oakes, John Hurley, H. C. Hawks, The Tech; C. E. Cleveland, The First Father; G. H. Burr, The Class Prophecy; W. E. Newbert, The Civils; H. B. Sawyer, The Mechanics; F. A. Higgins, Our Rank System; H. W. Carter, Our Naval Professor; N. Marshall, Class Poem.

The boys then stood up in line and commencing at the upper end shook hands all the way down the line. Several college songs were sung during the evening, and two years from that date appointed for the first class reunion. The following officers were elected: President, A. B. Fairbanks; first Vice-President, C. E. Cleveland, second Vice-President, H. W. Carter; Treasurer, Frank Fay; Secretary, H. C. Hawks. The meeting then adjourned to the street, much to the disgust of the city police, and at four A. M. proceeded to serenade the Faculty. Dr. Fuller was the only member who responded, remarking in a brief address, that if they showed half as much energy in after life as they had in the past two days, their success in life was assured, as God willing, he hoped would be the case.

N. B. Up to time of going to press but little energy has been manifest.

SERVED TO ORDER.

Commencement Night, July 1, 1886.

NORMAN MARSHALL.

HAPPY are we to meet this eve
Released from iron rule;
To lay aside our brains awhile,
And play the jolly fool.

And while at ease we laugh and sing,
Since Evening's just begun,
Let us recall to mind again
The years when we were young.

The number of our class is small,
And yet we blush to say
That athletes, scholars, writers, artists,
Seldom shine in such array.

To sing the deeds of such a class
Were asking quite too much.
The thing, if written out, would fill
The books we've read in Dutch.

Glorious the tale; but yet so long,
'Twould bore the man who hears;
The day would break, and we must go
Before the dawn appears.

Therefore an abstract we will have,
With a little sketch or so,
Like those we used to make for George,
When we were Juniors long ago;

When we were Preps, perchance, and blushed
Deep red because so green.
Can you recall those days B. S.?
Just think, how did it seem?

Ah! those were happy days for us;
We then were fresh and young.
With what stern purpose and "éclat"
Our studies were begun!

With what rare joy and Comfort
Did we our German learn!
How after Physics, Chem. and Geom.,
Each one of us did yearn!

And with what glee we hailed the day
Before the first Exam.—
Those pleasant evenings that were spent
Upon the final "cram"!

Then every man could plainly see—
In his mind's nether eye,—
The hundred dollars that he'd have,
The moonlight rides 'twould buy,

Each saw himself at least the sixth,
As sure as we're alive;
Nor in his sleep did once he dream
'Twould be but seventy-five.

Then we were innocent, nor knew
That marks were only frauds.
We did not know "The powers that be;"
We trusted in the — Lord's!

But when that first Exam. was passed,
And counted were the slain,
We knew the "Weeder" was abroad—
We knew he'd come again.

So, through the sultry Summer days,
Low crouching each man lay;
And on the night of June 13th,
We "jumped" on Chauvenet.

"Ah! Never shall the land forget"
Our march to William's tomb;
The muffled drums, the torches' glare,
The men that sealed his doom.

Quickly vacation days were passed.
Our Middle year begun
Chiefly with Johnny, who is stored
With many an ancient pun.

Yes! Even now methinks I smell
The stench of his stale jokes,
Whose analytic odors reach
To Heaven's asymptotes.

Again vacation came and went.
As Senior's we came back
To fight it out on English ground,
And die on Bowser's rack.

If scared by Bowser's ugly Probs.,
Where'er we chanced to be,
To take some "moments" soon we found
Were better than to flee (two flea).

(The flea's a little animal
That's dear to all our hearts.
He cometh—we reach to touch him—
He suddenly departs.)

Ah! We had known some wicked men
Before we met Rankine,—
Some men whose heads we'd like to try
Beneath a guillotine.

(Simply to find the shearing force
Between the knife and brains.)
But Rankine's neck we'd stretch to get
His "Theory of strains."

But English, Rankine, Bowser, Thermo.,
Have been long forgotten.
Let the "Thugs" in torture slumber,
Until they are rotten.

And we'll turn our minds to themes
Worthy our reciting.
To the things that we have found
Much more to our liking.

O loudly did the Juniors boast.
Were 't not for that new (k)not
Their men would surely win the tug,
If they did (k)not the drop.

"The knot must go," said '87.
"It is our only hope."
Yet still we had on something new—
A New(bert) butt on the rope.

And still the old rope acted queer,
And "slided" all one way,
To swell our sixty-one per cent.
Of prizes for the day.

One tear for '87's nine
And for their weeping maids,
To whom were promised ribbons red
To tie upon their borrowed braids.

But, "Tempus fugit"—I'll stop short.
(No, thanks; we never mix.)
Comrades, a straight and brimming glass,
To grand old '86!

A FEW FACTS CONCERNING THE CLASS OF '86.

THE class of '86 commenced the course with 56 members, of whom 29 have graduated; that is just 51.8 per cent. One chemist, 9 civil engineers, and 19 mechanical engineers. Twenty-one members of the class were born in Massachusetts, 2 in Maine, 2 in New Hampshire, 2 in Connecticut, 1 in Vermont, and 1 in Illinois. Worcester claims 5 of the 29, and Spencer—the only other place containing more than one—claims 2.

Their religious preferences may be stated as follows: Congregationalists, 15; Methodist, 1; Baptists, 3; Episcopalians, 2; Methodist Episcopalians, 2; Presbyterian, 1; Unitarians, 2; Roman Catholic, 1; while one claims to be a Free-Thinker, and one undecided with the Bible as a religious guide.

In politics 1 is an Independent, 2 are Prohibitionists, and all the rest are Republicans, two of whom are in favor of free trade.

Votes were taken with the following result: Favorite study—Geometry, 4; Mechanics, 4; Analytical Geometry, 4; Algebra, 4; Descriptive Geometry, 3; German, 2; French, 2; Chemistry, 2; Thermo-dynamics, 1; Draughting, 2; and English Literature, 1. Favorite Prof.—Sinclair, 12; Gladwin, 5; Kinnicutt, 4; Alden, 3; Smith, 2; Eaton, 1; and two voted "hard to discriminate." Twenty-one voted in favor of dancing, and 8 against it. Smoking, in favor, 10; opposed, 19. Card-playing, in favor, 24; opposed, 5. None of the class chew, and all are for temperance, with a large majority for total-abstinence. Five men learned to play cards at the Tech, while but one claims the same for smoking. The votes on the following questions are significant: "Do you believe in a four-years' course for the Tech?" Yes, 27; no, 2. "Do you believe in compulsory attendance at prayers?" Yes, 11; no, 18. "Do you believe in the present ranking system?" Yes, 10; no, 19. It is an amusing fact that the first man in the class voted against the ranking system, and the last man voted for it. The oldest man's age is 25 yrs. 2 mos. 15 days; the youngest man's, 18 yrs. 7 mos. 7 days; the average age is 22 yrs. 17 days, and all but seven are over 21 years of age. The height of the tallest man is 6 ft. $\frac{3}{8}$ in.; of the shortest, 5 ft. $5\frac{1}{4}$ in.; and the average height, 5 ft. 8.4 in. The heaviest man weighs 178 lbs.; the lightest, 122 lbs.; the average weight being 147 lbs.

CLASS OFFICERS OF '86.

PRESIDENT.

Apprentice Year, —Walter G. Wesson.
Junior Year, First Half—Clarence E. Cleveland.
Junior Year, Second Half—Frank Fay.
Middle Year, First Half—Alonzo W. McArthur.
Middle Year, Second Half—William S. Morehouse.
Senior Year, First Half—Albert A. Gordon, Jr.
Senior Year, Second Half—Hamilton J. Chapman.

VICE-PRESIDENT.

Apprentice Year, —Albert A. Gordon, Jr.
Junior Year, First Half—Frank Fay.
Junior Year, Second Half—Alonzo W. McArthur.
Middle Year, First Half—William S. Morehouse.
Middle Year, Second Half—H. Clifford Hawks.
Senior Year, First Half—Arthur B. Fairbanks.
Senior Year, Second Half—Leon A. Whitney.

SECRETARY AND TREASURER.

Apprentice Year, —Arthur B. Fairbanks.
Junior Year, First Half—
Junior Year, Second Half—George H. Burr.
Middle Year, First Half—Edward G. Watkins.
Middle Year, Second Half—Harry B. Sawyer.
Senior Year, First Half—Amzi T. Rogers.
Senior Year, Second Half—Walter F. Brooks.

SENIOR CLASS STATISTICS.

BACHELORS OF SCIENCE.	DEPART- MENT.	BIRTHPLACE.	AGE TO JULY 1, 1886.			FITTED FOR TECH AT	HEIGHT.		WGT. LBS.	SIZE OF HAT.	FUTURE ADDRESS.
			YRS.	MOs.	DAYS		FT.	IN.			
Alvord, Clinton.	M. E.	Greenfield, Mass.	20	7	21	Williston Seminary, Easthampton, Mass.	6		145	7½	6 State St., Worcester, Mass.
Bennett, Charles Alpheus.	M. E.	Holden, Mass.	22	3	3	Holden High School.	5	6	122	7	Holden, Mass.
Brooks, Walter Freeman.	C. E.	Rutland, Mass.	25	2	15	Markato Normal School, Minnesota.	5	8½	143	6½	Mapleton, Blue Earth Co., Minn.
Burr, George Howard.	C. E.	Florence, Mass.	20	4	23	Friends Boarding School, Providence, R. I.	5	10½	178	7½	Florence, Mass.
Carter, Henry Wallace.	M. E.	Chicago, Ill.	20	0	25	Tutored.	5	10	145	7½	3326 Vernon Ave., Chicago, Ill.
Chapman, Hamilton Johnson.	C. E.	Norfolk, Mass.	22	6	17	Dean Academy, Franklin, Mass.	6	3	168	7½	Franklin, Mass.
Cleveland, Clarence Edwin.	M. E.	Worcester, Mass.	20	11	0	Worcester High School.	5	5½	152	7	28 Cedar St., Worcester, Mass.
Drake, William Elisha.	M. E.	Spencer, Mass.	22	9	17	Home Study.	5	11	146	6½	8 Bellevue St., Worcester, Mass.
Fairbanks, Arthur Brewer.	M. E.	Framingham, Mass.	21	5	9	Williston Seminary, Easthampton, Mass.	5	10½	150	7½	Spencer, Mass.
Fay, Frank.	M. E.	Chester, Mass.	24	2	24	Westfield High School.	5	5½	140	7	Chester, Mass.
Gordon, Albert A., Jr.	M. E.	Worcester, Mass.	21	4	15	Worcester High School.	5	10½	143	7	40 Richland St., Worcester, Mass.
Green, Harry Shepley.	M. E.	Spencer, Mass.	22	2	7	Spencer High School.	5	4½	130	7½	
Hawks, Horatio Clifford.	C. E.	Deerfield, Mass.	24	0	4	Deerfield High School.	5	8½	153	7½	Deerfield, Mass.
Higgins, Frank Albert.	M. E.	Manchester, N. H.	21	5	15	Manchester High School.	5	6½	135	7½	Manchester, N. H.
Higley, Charles William.	M. E.	Becket, Mass.	21	7	12	Wesleyan Academy, Wilbraham, Mass.	5	7	138	7	Becket, Berkshire Co., Mass.
Hunt, Charles Francis.	C. E.	Granby, Mass.	24	3	22	South Hadley High School.	5	7	144	6½	
Marshall, Norman.	C. E.	Hampstead, N. H.	21	6	25	Bromfield School, Howard, Mass.	5	9½	150	7½	Still River, Mass.
Miller, John Calvin.	C. E.	Gardner, Mass.	22	0	12	Gardner High School.	5	11½	146	7½	West Gardner, Mass.
Mitchell, Thomas Francis.	Ch.	Worcester, Mass.	18	7	7	Clark Institute, Northampton, Mass.	5	7	178	7½	22 Union Ave., Worcester, Mass.
Morehouse, William Stephen.	M. E.	Fairfield, Conn.	24	11	9	Home Study.	5	11½	138	7½	Fairfield, Conn.
Newbert, Walter Edward.	C. E.	Waltham, Mass.	20	7	19	Fitchburg, Mass.	5	7	147	7	
Oakes, William Henry.	M. E.	Fitchburg, Mass.	20	1	22	Fitchburg High School.	5	8½	126	6½	P. O. Box 1047, Fitchburg, Mass.
Rogers, Amzi Trowbridge.	M. E.	New Fairfield, Conn.	24	4	18	Danbury High School, Conn.	5	8	148	7	P. O. Box 569, Danbury, Conn.
Sawyer, Harry Banks.	M. E.	Bath, Maine.	22	7	3	Bath High School.	5	8½	170	7½	Bath, Maine.
Smithwick, Nathaniel Austin.	M. E.	Damariscotta, Maine.	22	3	6	Phillips, Exeter, N. H.	5	11½	150	7½	New Castle, Maine.
Walker, Arthur Francis.	C. E.	Hopedale, Mass.	22	8	29	Milford High School.	5	7½	145	7	Hopedale, Mass.
Watkins, Edward Goodrich.	M. E.	Proctorsville, Vt.	21	2	2	Gardner High School.	5	7½	148	6½	Gardner, Mass.
Wesson, Walter Gale.	M. E.	Worcester, Mass.	20	8	16	Worcester High School.	5	10	142	7½	Worcester, Mass.
Whitney, Leon Augustine.	M. E.	Westminster, Mass.	22	2	1	Westminster, Mass.	5	10½	138	7½	Westminster, Mass.
Average,			22	0	18		5	8.4	147		

'86 IN THE FIELD.

THE following list gives the individual record of each member of '86 who has ever taken a prize on field-day.

NAMES.	1st Prize.	2d Prize.	Total.	Records.
Alvord,	2	4	6	
Bennett,	2	3	5	
Carter,	2	3	5	
Chapman,	3	1	4	
Cleveland,	0	2	2	
Fairbanks,	8	6	14	2
Fay,	4	1	5	
Gordon,	10	5	15	1
Hawks,	1	0	1	
Hunt,	1	2	3	
Marshall,	4	5	9	1
*Myers,	2	0	2	
Newbert,	3	1	4	
Oakes,	0	2	2	
*Pinney,	8	5	13	1
Rogers,	2	4	6	1
Smithwick,	2	1	3	
Watkins,	12	10	22	1
Wesson,	0	1	1	
Total, Class of '86,	66	56	122	7
Total, Class of '84,	64	52	116	2

*Left before graduation.

Hence it will be seen that the record of the class of '84 is broken and beaten by six points.

ALUMNI REUNION.

THE thirteenth annual reunion and dinner of the Tech Alumni Association was held at the Bay State House on the evening of June 30. There was an attendance of about seventy, representing all of the classes, and a very pleasant time was enjoyed. The members met in the parlors at an early hour, and the time was passed in the renewal of old acquaintances, many not having met for some years. About 8 o'clock Charles G. Washburn, the president of the association, took the chair, and called for order. The report of the secretary, S. S. Jennison, was read and accepted. The subject of raising an alumni fund, to be used for some special purpose in connection with the Institute when it shall have reached a certain sum, was brought up and discussed. It was voted to call it the Thompson Memorial Fund, and that the method of raising it and the final disposition of it be left to the executive committee, the secretary to act with them. A request having come from the faculty for

the selection of three members of the association to act on the examining board for 1887, a committee was appointed, and they reported the following: Clarence A. Chandler, '74, Charles G. Washburn, '75, and Francis Blake, '76; Alternates, E. H. Bigelow, '75, F. E. Appleton, '74, N. A. Cobb, '81. The report was accepted and the list adopted. An invitation was received from Dr. and Mrs. Homer T. Fuller, inviting the alumni to an informal reception at their residence the same evening, which was accepted. There being no further business, the meeting adjourned.

Dr. H. T. Fuller and Profs. G. I. Alden, George E. Gladwin, M. P. Higgins and J. E. Sinclair of the faculty, and Hon. P. Emory Aldrich, president of the board of trustees, then came in, and were received by the alumni. Soon after, the guests were escorted to the dining hall by president Washburn, and the members formed by seniority of classes, and marched to the tables. After divine blessing by Prof. Alden, a bountiful dinner was enjoyed. After dinner Charles G. Washburn welcomed all in a few pleasant words, and then introduced the speakers in an appropriate manner.

The following gentlemen responded to his call:—Dr. Homer T. Fuller, Hon. P. Emory Aldrich, Prof. George I. Alden, Prof. M. P. Higgins, Prof. G. E. Gladwin, Prof. J. E. Sinclair, E. F. Tolman, '71, M. B. Smith, '72, James A. Logan, C. S. Joslyn, '74.

REUNION OF '84.

THE Class of '84 held their first reunion at the Bay State House, these members being present: James H. Churchill of Boston; H. H. Small of Lynn; C. B. Albree of Allegheny City, Pa.; R. H. Aldrich of Seneca Falls, N. Y.; J. N. Heald of Barre; G. H. Cushing of Middle Falls, N. Y.; Willard Fuller of Cleveland; W. E. Estes of Providence; F. L. Stevens of North Hoosac; J. C. Setchel of Norwich; N. C. Johnson of Holyoke; A. H. Wheeler and Daniel Knowlton of Worcester. In the absence of the President, A. D. Stevens, who is at Jacksonville, Fla., Vice-President James H. Churchill presided, and a very pleasant time was enjoyed. These officers were elected for the next three years, when the next reunion will be held: President,

Willard Fuller; Vice-Presidents, A. H. Wheeler first, C. B. Albree second, R. H. Aldrich third; Secretary and Treasurer, George H. Cushing.

A silent toast was proposed and drank to the absent members, and the meeting was adjourned until July 1, 1889, at 4 P. M.

ATHLETICS.

AT the meeting of the Intercollegiate A. A. of Pa., May 22, two college records were broken, running high-jump 6 ft. $\frac{1}{2}$ in., and standing broad-jump 10 ft. 8 in. At a special meeting held May 22, though the weather was fine and the track fast, no records were broken.—At Princeton college, May 20, the Princeton A. A. held its spring meeting but nothing remarkable was done. Return: 100 yards run, $10\frac{1}{4}$ sec.; pole vault, 8 ft. 6 in.; one mile run, 5 m. 16 sec.; putting 16-lb. shot, 36 ft. $2\frac{1}{2}$ in.; 220 yds. run, $25\frac{2}{5}$ sec.; running high-jump, 5 ft. 6 in.; one mile walk, 8 m. 47 sec.; quarter mile run, 1 m. 11 sec.; hurdle race 120 yds., 20 sec.; half mile run, 2 m. 12 sec.—The spring meeting of the Yale A. A. took place May 22 and was interesting exhibition. The most noteworthy performance was the beating of all previous college records at hammer throwing by Cox, distance 94 ft. $3\frac{1}{2}$ in.—Brown University A. Club held their spring meeting May 28, with the following returns: Throwing base-ball, 298 ft. 8 in.; standing high-jump, 4 ft. $5\frac{1}{2}$ in.; half mile run, 3 m.; standing broad-jump, 9 ft. 5 in.; one hundred yards run, 11 sec.; two mile run, 12 m. 34 sec.; pole vault, 8 ft. 6 in.; putting shot, 31 ft. 2 in.; running broad-jump, 17 ft. 9 in.; hurdle race 120 yards, 21 sec.; hop, step, and jump, 38 ft. 9 in. For a "University" this showing is pretty poor. A half mile run in 3 m. would be very fair time for a primary school.—Weather and track favoring the Brooklyn Polytechnic Ins. A. A. held a field meeting May 28. Return: Hundred yds. run, $10\frac{3}{5}$ sec.; two hundred and twenty yds. run, 23 sec. The other races were handicapped and very good time was made.—The championship games of the Intercollegiate Athletic Asso. was held in New York, May 29. Harvard won a plurality of prizes and thereby the possession of the Association Cup. Only two records were broken though the weather was perfect and the track in ex-

cellent condition.—At Beacon Park, June 14, Wendell Baker of Harvard made trials of sprinting to break records. He ran two hundred and twenty yards in 22s. beating his own record. He also ran 180 yds. in 18s. breaking all records.—Judge Lowell of Brookline has this year founded two scholarships at Harvard College with an income of \$200 each which are to be awarded for excellence either in the Classics or Athletic contests. They are in memory of his son, a graduate in the class of '83, who committed suicide in a fit of despondency eight months after his graduation. He had great talents in study and in athletics, and was president of the Harvard Athletic Asso. and a member of the Phi Beta Kappa.

BASE-BALL.

MAY 29, the game between '86 and '87 was played to decide the championship of the school and the result was most satisfactory to the Senior Class.

To the Middlers the game was generally unsatisfactory and on their part was a curious mingling of good and loose playing. '86's best work was done in the third inning when they made five runs, three of them earned. This, together with costly errors by '87 in the fifth and seventh innings decided the game. '87's work in the field was well done in the first two and last two innings. Most of their effective work at the bat was done by Allen, who, five times at the bat, made four singles and one three-bagger; and this against Oakes who had saved himself all the Spring, for this game. To most of the others his pitching was very "annoying."

A nine picked from the Middle and Prep Classes met the nine from the St. John's Guild, June 5. It was a well-played game, little like the "rattler" the Guilds gave the school team

last year, and with some of '86's men playing, the chances are good for the result being reversed.

The scores follow:—

May 29.

'86.	A.B.	R.	B.H.	T.B.	P.O.	A.	E.
Oakes, p.	6	2	3	3	4	11	4
Watkins, s. s.	6	1	2	4	1	2	0
Gordon, c.	6	2	1	1	6	3	1
A.B. Fairbanks, 3b.	6	1	1	1	1	3	3
Cleveland, 1 b.	5	2	0	0	13	1	1
Chapman, r. f.	5	4	1	2	0	0	0
Wesson, l. f.	5	1	0	0	0	0	1
Burr, 2 b.	5	0	0	0	1	0	3
Higgins, c. f.	5	3	1	1	0	0	1
Totals.	49	16	9	12	26*	20	14

*McClurg out by being hit by batted ball.

'87.	A.B.	R.	B.H.	T.B.	P.O.	A.	E.
Emory, 3 b.	5	2	1	1	2	0	1
Grimes, 2 b.	5	2	1	1	2	1	1
Allen, 1 b.	5	2	5	7	6	1	2
E.H. Fairbanks, p.	5	1	1	1	1	11	5
Bird, c.	5	0	0	0	12	3	2
McClurg, s. s.	5	0	0	0	1	1	4
Tucker, r. f.	5	2	0	0	0	0	0
Knight, c. f.	4	1	0	0	2	0	1
Fish, l. f.	4	1	0	0	1	0	1
Totals.	43	11	8	10	27	17	17

1 2 3 4 5 6 7 8 9

'86 0 0 5 1 4 2 4 0 0

'87 0 1 2 0 0 0 4 1 3

Three-base hits, Watkins, Allen.
Passed balls, Bird 2.
Wild Pitches, Fairbanks 1.
Struck out, Oakes 5; Fairbanks 10.
Base on balls, Oakes 3; Fairbanks 4.
Earned runs, '86 five; '87 three.
Left on bases, '86 six; '87 five.

June 5.

GUILD.	A.B.	R.	B.H.	T.B.	P.O.	A.	E.
Doyle, 3 b.	6	0	3	4	4	2	0
Cramer, p.	6	1	2	2	0	14	2
Carroll, 1 b.	6	1	0	0	11	0	3
Garvey, r. f.	5	3	2	2	0	2	0
Hennessey, c.	5	1	0	0	9	4	2
Cahill, s. s.	5	2	1	1	2	1	0
Raymond, c. f.	5	1	1	1	0	0	0
McCloskey, 2 b.	5	1	0	0	1	3	2
Hines, l. f.	5	1	1	1	0	0	1
Totals.	48	11	10	11	27	26	10

TECH.	A.B.	R.	B.H.	T.B.	P.O.	A.	E.
Emory, 3 b.	4	1	0	0	2	1	7
E. L. Grimes, 2 b.	4	1	1	2	3	1	2
Allen, 1 b.	4	0	1	1	11	0	2
E.H. Fairbanks, p.	4	0	1	1	1	9	4
Cook, s. s.	4	2	1	2	1	1	0
T. Grimes, c. f.	4	1	1	1	0	0	0
Hartwell, r. f.	4	0	0	0	0	0	2
Fish, l. f.	4	0	1	2	2	0	0
Bird, c.	4	0	0	0	7	1	1
Totals.	36	5	6	9	27	13	18

1 2 2 4 5 6 7 8 9

GUILD. 3 1 0 0 1 0 4 0 2

TECH. 1 0 1 1 0 1 0 1 0

Two-base hits, Doyle, E. L. Grimes, Cook, Fish.
Passed balls, Hennessey 2.
Wild pitches, Fairbanks 2.
Struck out, Cramer 12; Fairbanks 4.
Base on balls, Cramer 2; Fairbanks 2.
Earned runs, GUILD 2; TECH 1.
Left on bases, GUILD 10; TECH 4.
Double play, Bird.

Communications.

THE following note, received just before going to press, will serve well as an example of the interest taken in their Alma Mater by the Alumni. We have received many such notes, which have remained in many cases unanswered for want of time, and the editors are glad to take this opportunity of stating their deep appreciation of such considerations:

BATTLE LAKE, MINN.,

June 23, 1886.

J. B. CHITTENDEN, Editor,

Worcester.

Dear Sir: I have just been looking over the last issue of your valuable paper, and I see the financial editor belongs to the class of '86, so I am in a dilemma to know who to remit my subscription to for the coming year. Who will be the financial editor now? I have read the paper with a great deal of pleasure this past year, and I think I could hardly do without it. The editors have done themselves proud, and it is my opinion the Alumni should give

them a vote of thanks for the information contained in the W T I. It makes a man feel that he has some connection with the school yet. Your field-day report shows the boys are making great improvement in athletics, but I am sorry to note they seem to be unable to get up a B. B. team. There was a time when no club in Worcester, except the professionals and the Holy Cross team, that could walk away with the Techs. We warmed the Boston Techs every time we played them, both in Boston and Worcester; and even the Harvard Freshmen had to take a back seat, the only game we ever played them. I hope we shall hear good news from the Tech team this fall. And now, Mr. Editor, hoping for your good luck in the next two years, when you will tackle "Johnnie's" imaginary perpendicular and horizontal, "Smithy's" German, ten pages a day, and "Kinney's" Thermo-dynamics (which, by the way, he will charge you \$1.25 for), I remain,

Yours truly,

B. B. WARFIELD, '82.

VERILY the life of ye editor is not to be considered a bed of roses, and, in sooth, it is not the least of his trials that on occasion he and the bull-pup are obliged to interview ye correspondent whose communication, which will rank with the following, has been declined with thanks. The last two received will fairly match with each other, and ye ed. will publish them so that his friends perchance will wonder that his gray hairs were not long since brought down in sorrow. Ye ed. is happy to assure the reader that the love and mutual esteem herein set forth does not by any means represent the true state of affairs as between the two classes:—

MR. EDITOR:

In the final game for the base-ball championship of the W. T. I., the lovers of the "National Game" were treated to as big a picnic as ever took place on the grounds. In spite of the blowing of the half-breeds of '87 they were obliged to go under before the stalwarts of '86; "sheekles" and "chestnuts" availed them nothing.

The men of '86 did not depend on "wind" to win the game but sought refuge in the "stick." '86 went prepared to play ball; their expectations, however, were not realized, for they didn't have to play "a little bit."

Ye "bloods" of '87 must have felt very sore after having promised your badges to the fair ones of the city; but, dear boys, you have our heartfelt sympathy, and can console yourselves in the thought that it was only one more intrusion on that old-time adage, "Don't count your chickens before they're hatched."

It was the same old story '86 "took the earth," and the championship badges now adorn their rooms. SENIOR.

MR. EDITOR:

There has been a good deal of quiet fun poked at the Seniors during the last few weeks, occasioned by the Senior-Middle ball game and the field-sports. Even the Preps, who of course supposed '86 was all it tries to believe it is, got an eye-opener at the time of the Senior-Prep game, and have since enjoyed the situation immensely.

The Seniors have taken a good deal of taffy, most of it assumed, as might be expected, and have received it with an innocence too natural to be affected, and which is in strange contrast to their boasted superiority (B. S.)

The result of the Spring field-sports was rather of an anti-climax to their expectations and preparations, and one of them but voiced the feelings of all when

he said he didn't "see what was the matter with the fellows; they ought to have taken everything," not including the set-back which they *did* receive.

The Tug-of-War was their great consolation and one suited to their taste. It *was* strange that the heaviest team in the school, and gymnasium-trained in addition, should pull the others; nothing but a chance to "kick" would have compensated the loss of this event.

But the day served to show that there were "athletes" in the school outside '86, and who with equal training could beat them.

The Senior-Prep game was a "starter," and their swift "battery" was quickly unlimbered for action. The Senior captain was sanguine that he had good material for a second baseman, even after said "material" had demonstrated the fact that he could throw a ball sixteen feet over third baseman's head in a close play.

Through all, however, the Seniors have kept '86 carefully in view, and their exterior has remained unruffled.

O, ye would-be Cæsars, take the lesson home and cogitate. Now ye know all else, study yourselves. We'll never give you away, and if ever you acquire that wisdom which you now affect, and your own blindness ever becomes sensible of the vision of others, may a kind hand interpose a curtain of forgetfulness between you and your past, and may no ill-fated breeze lift its uttermost fold from before the awful spectacle.

Adieu, O ye men of brawn and baseball ability! May you find a success which will let you off with an easy conscience. You will be missed, of course; but if it don't trouble you, it certainly won't us. Give us a call occasionally, we don't want to forget how you look; and if you can spare it, leave us a lock of your hair (one color will do). If you haven't brass enough to carry you through, we'll do what we can to help

you out. We can at least give you the chunk of lead which your ex-champion kicker forgot to remove from a pair of borrowed shoes.

But, enough. Good-bye, dear old fire-eaters, we'll see you later.

MIDDLER.

Scientific Notes.

THE long sought for aerolite which fell in Pa. last September has been found by Prof. Emerich of William & Mary College. It was imbedded in the soil and weighed about 200 tons. It is composed of aluminum, nickel, chromium, copper, magnesium and tin. It is the largest aerolite on record.

As an experiment a piece of iron was recently rolled, at Niles, Michigan, as thin as a piece of paper. It would take 150 sheets to make an inch in thickness.

Prof. Duvar recently exhibited at the Royal Institution the method which he employs for the production of solid oxygen. This device depends upon allowing liquid oxygen to expand in a partial vacuum when the enormous absorption of heat which accompanies the expansion results in the production of the solid substance. Oxygen as a solid resembles snow and has a temperature of about 200° Centigrade. It is suggested that by the aid of this chemists can approach the absolute zero of temperature (—273° C.) and can investigate many interesting changes in the physical properties of bodies under the primordial condition of the temperature of space.

The *Railroad Gazette* gives an account of the longest time on record of a fire lasting. A furnace in the Kemble Iron and Coal Co. was banked and hermetically sealed in Nov. 1884, and the fire left burning. On March 5, 1886, it was opened after having been closed for nearly sixteen months. The coals were still alive and shortly after the admission of air, it became hot enough to melt cinder.

By actual measurement it has been found that the lead of a plummet line suspended from the interior of the dome of the capitol at Washington swung over a space of four inches and a quarter making a total dip

from the perpendicular of eight inches and a half. This movement involves the entire dome and is caused by the expansion and contraction due to the action of the sun on the material of the dome. No doubt the chief part of the motion is due to the more ready expansion of the iron of which the dome is constructed; but similar experiments on Bunker Hill monument show that a structure built entirely of stone and mortar is also similarly affected by the sun's action.

A writer in *Harper's Magazine* says of the manufacture of beet sugar, that although hardly started in this country yet in Europe it has attained such proportions as to form half the marketable sugar of the world. It was discovered by Achard, a Russian chemist; but the industry first started during the Napoleonic wars. The beet commonly used in Europe is the white Silesian. The juice is extracted either by pressing or diffusion process, and the process of extracting the sugar from the juice is about the same as from the cane.

Personals.

MR. EMERY, '85, sails for Europe the 21st of July.

Mr. Burr, '86, after a few weeks rest will commence work at Florence, Mass.

Mr. Walker, '86, will begin his work with the Phoenix Bridge Co. of ———, Mo.

Dr. Fuller intends to spend most of his vacation in mineralogical and geological work.

Mr. Cleveland, '86, after a short vacation, begins work as draughtsman in the Cleveland Machine Works.

Mr. Von Wrede, '87, and Mr. Harrison, '89, have sailed for Europe for the summer.

Knapp, '87, is recovering fast from his very serious illness and hopes to be able to join '88 in the fall.

Mr. Brooks, '86, has been engaged to use his knowledge of Civil Engineering

on the Duluth, Watertown and Pacific R. R., Dakota.

W. D. Sewall, '82, was joined in marriage June 9, with Miss Mary L. Sumner, daughter of Mr. George Sumner, the well-known merchant of this city.

Mr. Fuller, '84, is in town for a short visit, and renewed his old acquaintance with athletics by officiating as umpire in the closing game of base-ball for '86.

Mr. Wheeler, formerly of '86, was in town over commencement, in order, as he expressed it, "To hear the boys shout." His eyes, though still very weak, are improving.

William P. Dallett, '81, was married Thursday, June 3, to Miss Rebecca Russell, daughter of Mr. and Mrs. Samuel Thurber. Mr. Thurber will be remembered as a former Principal of the High School.

Prof. Eaton in the course of his botanical studies has been classifying this year all the flowering plants that grow upon the Tech. grounds. He expected at first to secure about one hundred varieties, and when interviewed only a few weeks later had already obtained over eighty.

Mr. Drake, '86, has been offered and has accepted the position of assistant to Prof. Kimball in the Physical laboratory. Mr. Drake has been prominent in his class for his interest and success in Physical experiments, and his reputation as a hard and sincere worker leaves but little doubt that he will fill the position to the complete satisfaction of both Professor and student.

Mr. Pierpont, '86, was also in town to bid the boys good-bye, and to complete his work upon the paper. His improved health is quite evident and unless outside inducements prove too strong for him, he still hopes to join the Alumni with '87. He has been travelling for a few weeks in the manufacturing towns of Pennsylvania.

G. F. Myers, '88, has employed his leisure hours during the past year in inventing a book-holder to accompany the school chairs. He completed one of them from his own drawings just before the close of the vacation which, proved in every way satisfactory. Mr. Myers is open to congratulations.

In perusing an account of the commencement exercises at Williston Seminary in the columns of the *Union*, we again hear from Prof. N. A. Cobb, '81. We clip the following:—

The most noteworthy progress of the year has been in carrying out the new departure in the scientific departments under N. A. Cobb, which were forecast in the *Union* two years ago. Mr. Cobb, who has been here five years, is an enthusiast in his work and the trustees have cordially seconded his efforts to make the science teaching at Williston abreast of the best to be found in any secondary school in the country by providing the necessary appliances for each student to investigate for himself the phenomena studied. The new biological laboratory has been fitted up with a table, dissecting microscope, scissors and needles, and a compound microscope for each student. Instead of beginning with routine textbook work the pupil is put at dissection the first thing. Beginning with the yeast plant, which the pupil provides for himself by fermenting some yeast, and then examines carefully under his microscope, the study is continued on mold, green slime, mosses, and ferns, the cricket, the potato beetle, the clam, the frog, and last, the turtle, as representatives of the successively higher orders of life. Huxley and Martin's textbook has been used as a guide, but next year a new book by Mr. Cobb will be substituted. In addition to this general laboratory work the pupils are invited, a few at a time, to Mr. Cobb's private laboratory at his house, where they watch and examine more delicate specimens and operations than they have facilities for at the seminary. During the spring term, botany is taken up and each pupil prepares a herbarium of 100 or more specimens.

In chemistry similar methods are followed. Each student is provided with balances and weights, the expense of which is reduced to about \$10 for each pupil by having each make his own set of weights as a part of his regular work. Quantitative analysis is begun at once, reversing the old method, and instead of learning chemical laws by rote out of a text-book, the pupil arrives at them by a strictly inductive process from his own operations. The text-book used is probably the most unique work ever seen in a class-room of this grade. There being none adapted to his method of teaching, Mr. Cobb wrote one, and as the educational world is not yet advanced enough to make such a demand for a book of this kind

as would recoup the cost of printing, Mr. Cobb actually made copies enough himself with a copying press, for class-room use. The pages are as neat and legible as the most perfect printing, and substantially bound make serviceable octavo volumes. Is it any wonder that such a teacher as this inspires pupils with enthusiasm and that boys who could be made nothing of under the old methods become, under his instruction, ambitious and diligent workers?

Exchanges.

IT has been customary with some of the college papers to publish from time to time such criticisms as they may have received at the hands of their contemporaries. A proceeding which somehow offends the finer sense and the good taste of which is to say the least questionable. On this account the W T I has an established rule against it, and the present number would not prove an exception were it not for the fact that the late appearance of the paper will make it useless to send any copies away as exchanges and as a result they will be read only by the students and those personally interested in our progress. Believing that to such of our readers the following criticisms will prove of interest, we insert a few beginning with our friend from Illinois, who treated us to the only raking down it has been our good fortune to receive.

The "W T I" publishes monthly about twenty pages of mediocre matter. Its matter is bad enough, but we condemn the bad taste shown in the selection of the miserable card-board upon which it is printed, even more than we disapprove of the meaningless words with which its columns are filled.—*College Rambler*, III.

Fortunately our friends at Delaware College took up our cause and saved us much trouble by replying as follows:—

To edit the exchange column of a college paper is a work of importance and requires a man of some brains to take charge of it. We were never brought to a more painful knowledge of this fact than when we read the "exchanges" of the *College Rambler*. A person most fresh although a Sophomore, and most egotistical but without brains takes it upon himself to give advice to and to criticise the productions of our most esteemed exchanges. He has not the slightest idea how an exchange column should be conducted and does not know a good paper when he sees it. This is shown by the manner in which he criticises the "W T I," one of the best papers upon our table, although he has not sense enough to know it. And then he holds up the *Rambler* as the perfect

model of college journalism. All fools are not dead yet.—*Delaware College Review, Del.*

N. B. The exchange editor will be happy to show the *Rambler* on application.

From the *Troy Polytechnic*:—

Considerable vim and ability are manifested in the columns of the "W T I," and the paper bids fair to become an important factor in college journalism.

From the *Crescent*, New Haven:—

Although this issue of the "W T I" is only the second, still as to its general appearance and style, as well as contents, it makes a much better showing than many papers which are much older, and consequently ought to be much better. It contains much that is worth reading and this includes the editorials. It pays well to read it over carefully.

From Ripon College, Wis.:—

One of our best exchanges in all points is the "W T I" from the Worcester Technical Institute. It makes its first appearance among college journals this year. We have reason to hope for much from so excellent a beginning.

From the *St. James Reveille*, Mo.:—

The "W T I," Worcester, Mass., a new twenty-four page monthly has been received and bids fair to stand in the front rank of college journalism. This month's issue is very handsome, though the matter is inclined to be rather solid for a school journal.

From the *Tuftonian*, Mass.:—

The Worcester Technical Institute is the source of the other stranger who has brilliant capacities and knows how to be funny. A noteworthy feature of the paper is the free and fair discussion of questions interesting the students and the Faculty.

From the *Boston Journal of Commerce*:—

The "W T I" is a twenty-four page journal published during the school year by the students of the Worcester Technical Institute, Worcester, Mass., and will compare favorably with many of our exchanges. The heading for the outside page is very artistically arranged. The editorials, communications and general articles, make a very interesting paper to read, and the Personals and Technical Notes must induce every graduate to become a subscriber.

Technicalities.

SEE that your subscription for the paper is paid for another year.

The exhibition of drawings is unusually fine this year.

The usual number of visitors favored us during the last week.

Several of the Juniors are making up practice for the Middle year.

The Middle and Junior chemists finished practice the 29th of June.

The unexcused marks are very numerous this year, the Middlers leading.

We are indebted to the "Worcester Telegram" of June 11 for an extended description and history of the school.

A Hammond type-writer has been placed in the shop office.

The reunion and supper of the W. T. I. Alumni was held at the Bay State House, Wednesday, June 30.

Fay was chosen tree orator by the Senior Class, and Marshall was the choice for class poet.

'88's champion chemist says ozone is made by passing a current of H. through electricity.

A party of Middlers celebrated the occasion of "all passing in Calc." in a jolly manner.

Senior examinations began June 9th, closing the 12th. For the rest of the school they continued from the 14th to the 19th.

The Hendey Shaper has been in position for some time, and is a creditable witness of the shop ability of '86 and an important addition to the shop's outfit.

The Middlers were not examined in their work in wet-analysis because of the short time which has been devoted to it this term.

Chauvenet and the Faculty were again victorious, and the Juniors retired in good order from the debatable ground. Might is everything.

Prof. "Mr. —, how would you make ozone?"

Student. "Pass hydrogen through electricity."

There is to be as usual a summer school of woodwork in the wood-room during the vacation, which sons of mem-

bers of the Worcester County Mechanics Association may attend upon application.

For a half-dime members of the local Y. M. C. A. can obtain "Vacation Tickets," which will admit them to all privileges of any college association they may chance to visit during vacation.

Another record for '88. Camp '88, solved three hundred and sixty-three originals in Geometry, beating the previous record and including some not heretofore mastered at the Tech.

Out of a Junior class of forty-five in February, two members have been obliged to leave on account of ill health and several more have just pulled through. This "everlasting grind" is what does it.

List of ushers for Commencement: Chamberlin, Marshal; Bemis, Burke, Burr, Murray, Sawyer, and Tucker from '87; Chadwick, Chittenden, Goodell, Houghton, Mulliken, Marshall, Myers, and Spiers of '88.

As an illustration of the cramming process as it is carried on at the W. T. I. comes the fact that the Freshman class at Brown University went over in a half year the same amount of Trigonometry that the Junior class here, finished in *ten weeks*.

The following are to constitute the board of editors for next year: J. W. Burke, G. P. Tucker, '87; P. J. McFadden, J. M. Goodell, '88; F. L. Sessions, S. Bartlett, '89. Mr. Burke has been elected editor-in-chief by the new board, with Mr. Tucker as business manager.

SALISBURY PRIZES.

After the conferring of Degrees by Judge Aldrich the Salisbury prizes were awarded to the first six as follows: Harry S. Green, Spencer, Mass., Walter E. Newbert, Waltham, Mass., John C. Miller, Gardner, Mass., Thomas F. Mitchell, Worcester, Mass., Arthur F. Walker, Hopedale, Mass., Frank Fay, Chester, Mass.

The "sixes" this term are as follows:

Seniors:—H. S. Green, Spencer; T. F. Mitchell, Worcester; J. C. Miller, Gardner; W. E. Drake, Spencer; W. H. Oakes, Fitchburg; A. F. Walker, Hopedale.

Middlers:—I. L. Fish, Brunswick, Me.; E. F. Miner, Hazardville, Conn.; J. W. Burke, Tyngsboro'; E. L. Grimes, Princeton; W. W. Bird, Cambridge; W. A. McClurg, Meadville, Pa.

Juniors:—K. M. Shimomura, Kiyoto, Japan; J. M. Goodell, Worcester; C. L. Griffin, Springfield; F. S. Hunting, East Templeton; R. L. Lovell, Millbury, Mass.; G. E. Camp, Montpelier, Vt.

AT THE SHOP.

The old press has been newly rigged for use.

Several of the students have done private work, including writing and study desks, tool-chests and cabinets.

Much of the work shows fine carving of good original designs. Taken all together, the woodwork of the half-year has been very satisfactory, and will well repay an inspection.

In addition to the regular work in the Iron-room, two more hydraulic pullers are being made for the Worcester Steel Works; also, for the same place, a hydraulic lift.

One two-and-a-half-inch valve and eight one-inch valves, four of the latter being "twins" or double-acting, are in process of construction for Washburn & Moen.

Up stairs the Preps have turned out more and better work than ever before. Two roll-top desks head the list, one being for sale by the shop. The other, of English oak, imported, is for Supt. Morgan of the Wire Works. A large unique desk and cabinet combined, of white wood, stained cherry, is a good piece of work. Two cases of drawers have been completed for the shop office. Five small tables of new design are also worthy of mention.

Museum of Antiquity.

CUPID'S VICTORY.

"THE victory is mine," quoth she;
 "He loves me—that I know;
 Heart free am I, and joy to see
 His haughty head brought low."
 "The victory is mine!" quoth he;
 "She loves me—that is plain;
 I'm quite heart whole, and sport 'twill be
 To rule her sweet disdain."
 "Ha!" chuckled Cupid, looking on
 With wickedest design;
 "These stupid mortals both are gone,
 The victory is mine!"—*Chicago Current.*
 "I REMEMBER, I REMEMBER!"

I REMEMBER, I remember
 That boarding-house forlorn,
 The little window where the smell
 Of hash came in the morn.
 I mind the broken looking-glass,
 The mattress like a rock,
 The servant girl from County Clare,
 Whose face would stop a clock.
 I remember, I remember
 The gutta-percha hen
 They used to serve for chick of Spring
 To thirteen hundred men.
 We blasted it with dynamite,
 We vexed its bones full sore,
 In vain; 'twas served up fricassee
 For two or three days more.

I remember, I remember
 The next room's fiendish wight
 Who practised the B flat cornet
 From early morn till night.
 We stood his dreary "Peek a Boo,"
 "Sweet Violets," and more;
 But when he tried "We never Speak,"
 We wallowed in his gore.

I remember, I remember
 The lengthly weekly bill
 Received by me with shudders, and
 The symptoms of a chill.
 I also call to mind the night
 When no one was about,
 When into space I dropped my trunk,
 And through the dark skipped out.
 —*Chicago Rambler.*

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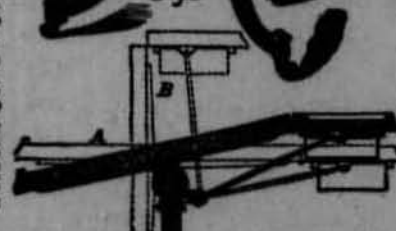
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Fig 1



Fig 2



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